

CONSTRUCTION INDUSTRY SAFETY COALITION

January 31, 2020

VIA REGULATIONS.GOV

Loren Sweatt
Principal Deputy Assistant Secretary of Labor
Occupational Safety and Health Administration
U.S. Department of Labor
200 Constitution Avenue, NW
Washington, D.C. 20210

Re: Occupational Safety and Health Administration (OSHA)
Docket #: OSHA-H005C-2006-0870
Occupational Exposure to Beryllium and Beryllium Compounds

Dear Ms. Sweatt:

I write on behalf of the Construction Industry Safety Coalition (“CISC”). The CISC respectfully files the enclosed written post-hearing brief to OSHA’s Proposed Rule on Occupational Exposure to Beryllium and Beryllium Compounds in Construction and Shipyard Sectors. 84 Fed. Reg. 53902 (October 8, 2019). The CISC appreciates OSHA’s consideration of the information presented in this brief.

Sincerely,

LITTLER MENDELSON, P.C.



Bradford T. Hammock
Melissa Harclerode

Enclosure

Construction Industry Safety Coalition Post-Hearing Brief

OSHA's Proposed Rule on Occupational Exposure to Beryllium and Beryllium Compounds in Construction and Shipyard Sectors

Docket No. OSHA-H005C-2006-0870

I. Introduction.

The Construction Industry Safety Coalition (“CISC”) respectfully files the following written post-hearing brief regarding OSHA’s Proposed Rule on Occupational Exposure to Beryllium and Beryllium Compounds in Construction and Shipyard Sectors, 84 Fed. Reg. 53902 (October 8, 2019) (“proposed rule”).

The CISC is comprised of over 25 trade associations representing virtually every aspect of the construction industry. The CISC represents small, medium, and large contractors; general contractors; subcontractors; union and non-union contractors. Virtually every construction trade, task, and activity is represented by the member associations of the CISC.

As a representative of every area in the construction industry, the CISC shares OSHA’s objective to protect all employees from beryllium and beryllium compound exposure that results in beryllium sensitization and/or chronic beryllium disease. Accordingly, the CISC has been an active participant throughout this rulemaking process. The CISC presented pre-hearing written comments to OSHA regarding its views of the proposed rule. In developing these pre-hearing written comments, members of the CISC held several meetings and teleconferences with each other and sought specific feedback from members regarding OSHA’s approach to regulating beryllium and beryllium compounds in construction. The CISC wishes to emphasize that the comments developed and information provided are based on the specific feedback members provided to the participant trade associations. The CISC also attended the December 3, 2019 Informal Public Hearing on the proposed rule and the CISC’s representative, Bradford T. Hammock, interacted and engaged with members of the OSHA panel as well as testifying representatives from other organizations.

The CISC’s post-hearing brief is divided into several sections. Section II summarizes the CISC’s position on the proposed rule, as expressed during the pre-hearing written comment period and in this post-hearing brief. Section III reiterates certain procedural objections the CISC has raised with respect to OSHA’s development of the proposed rule. And Section IV provides comments regarding the CISC’s views of additional information and argument received during the pre-hearing written comment period, hearing testimony, and post-hearing briefs.

II. Summary of the CISC's Position.

A. OSHA Failed to Demonstrate Significant Risk of Material Impairment of Health in Construction and that the Proposed Rule Would Substantially Reduce Risk.

The promulgation of this proposed rule fails to meet the established requirements for OSHA issuing a health standard. The Supreme Court has held that OSHA must demonstrate, based on substantial evidence in the rulemaking record, that a significant risk of material impairment of health exists with exposure to a particular hazard and that this risk will be substantially reduced through promulgation of the standard. *Industrial Union Dept., AFL-CIO v. Am. Petroleum Inst.*, 448 U.S. 607, 641-42 (1980). Additionally, every OSHA standard *must* be cost-effective. *See Int'l Union, UAW v. OSHA*, 37 F.3d 655, 668 (D.C. Cir. 1994); *see also* 82 Fed. Reg. at 29,185.

Substantial evidence in the rulemaking record fails to demonstrate that construction employees are exposed to a significant risk of developing beryllium sensitization (“BeS”) or chronic beryllium disease (“CBD”) or other disease endpoints associated with beryllium exposures as a result of their work in construction. There is no data in the rulemaking record that supports the position that BeS, CBD or other disease endpoints have developed from construction exposures. Further, the rulemaking record fails to show any evidence, from any time during OSHA’s many years of developing a beryllium standard, of beryllium-related disease at the previous PEL in construction. None of the studies presented by OSHA or any other member of the public during the public comment periods have ever concluded that construction workers have developed BeS, CBD or other associated disease endpoints while performing non-specialized construction operations. Further, none of the studies have covered the prevalence or existence of BeS, CBD, or other associated disease endpoints throughout the construction industry.

OSHA cannot simply rely on its conclusion that the risk that construction workers face with respect to beryllium is the same as the risk that general industry employers face in their operations. There is no surveillance data or study to support this position and the CISC urges OSHA to take careful note of this lack of evidence. The CISC agrees with Materion’s post-hearing comments that OSHA should “base its Beryllium Standards for Construction and Shipyards on evidence-based science and not on speculative or theoretical studies, unsupported extrapolations, conjecture or opinion.”

OSHA has also failed to account for the differences in toxicity in the construction environment, as beryllium is naturally occurring and can be found in almost all mineral and clay based materials. Such differences in toxicity could impact the risk, or lack thereof, of beryllium exposure in the construction sector. Indeed, the Deubner study, which OSHA discussed with regards to its 2017 final rule on beryllium in the construction and shipyard sectors, strongly suggests that exposure to naturally occurring beryllium is *not* associated with the development of beryllium-induced disease. *See* 82 Fed. Reg. at 2,502.

Additionally, OSHA (and the rulemaking record) has not, and cannot, demonstrate that this proposed rule will substantially reduce risk for construction employers. The CISC has previously

explained how the reduced PEL and STEL would not impact risk. And to the extent that abrasive blasting operators are the only occupation group of concern, which the CISC contends is still not a concern because there is no evidence of a heightened risk of BeS, CBD or other associated disease endpoints, such operators are already required to be protected by personal protective equipment (“PPE”) during most of their work tasks and will continue to be protected by such PPE.

The proposed rule also has not shown any reduction in any type of risk of material impairment of harm. There are no significant risks that need to be reduced or eliminated with regards to beryllium exposure to workers in the construction industry. Therefore, without any risk, there can be no reduction of risk. OSHA has also failed to demonstrate that the largely programmatic ancillary provisions in the rule result in any safety or health benefits.

B. OSHA Failed to Complete the Required Feasibility Analysis and Identify Affected Operations.

OSHA’s feasibility analysis fails to examine the potential beryllium exposure in the vast array of construction operations. Throughout the proposed rule, OSHA made numerous references to the “few operations” (and “some operations”) that may be potentially affected by beryllium exposure. Yet, OSHA only identifies and analyzes one specific operation – abrasive blasting. Even if OSHA were correct about abrasive blasting creating a health risk regarding beryllium sensitization, which the CISC does not concede, OSHA should not be applying this proposed rule to all areas of the construction industry. For OSHA to presume that there is a health risk due to beryllium exposure across the vast array of construction industry operations simply because OSHA incorrectly assumes it exists in one specific operation is improper.

OSHA’s failure to examine and present evidence reflecting whether beryllium is present and to what degree it is present in each construction operation has inappropriately shifted OSHA’s legal obligation to perform a technological feasibility analysis onto employers. The proposed rule requires construction employers to conduct exposure sampling to determine the existence of beryllium exposure and whether the existence is over the PEL or STEL. In other words, OSHA would be requiring construction employers to do its job and take on its responsibilities in determining beryllium exposure.

C. The Proposed Rule is Not Cost Effective.

OSHA has only identified potential risk of beryllium exposure in one construction operation – abrasive blasting – and such identification has not been supported with any evidence of an associated beryllium-related health risk. As such, OSHA has failed to demonstrate why beryllium exposure in the construction industry is a health risk. Further, if OSHA had successfully demonstrated that abrasive blasting resulted in a heightened health risk of BeS, CBD or other associated disease endpoints, which it has not, a limited risk exposure of beryllium should result in a regulatory approach that is similarly limited in scope. Therefore, the better, more cost-effective, approach would have been to scope the rule so that it only applied to those operations in which OSHA has presented sufficient evidence of beryllium exposure risk at a level above the

PEL or STEL. However, that is not the case here, not only has OSHA failed to present sufficient evidence that abrasive blasting results in a health risk of BeS, CBD or other associated disease endpoints, OSHA has also applied this proposed rule broadly across the entire construction industry.

OSHA could have developed a rule that was targeted to a particular job or task, limited the scope of this rule to areas of concern or excluded certain operations. OSHA could have also expanded the requirements of its already-existing ventilation standard in construction to include beryllium protective measures. Each of these options would have been much more cost-effective than this proposed rule.

D. The Proposed Ancillary Provisions Are Not Necessary.

The CISC does not believe that any of the ancillary provisions in this proposed rule are necessary. For example, the ancillary provisions require employers to implement a written exposure control plan. 84 Fed. Reg. 53,909. The written exposure control plan requires employers to list the operations and job titles of any employees that could have exposure to beryllium. This is what OSHA should have done on its own when it was developing a regulatory approach to beryllium exposure in the construction industry. But because OSHA failed to complete its own required feasibility analysis for all construction operations, OSHA is now, conveniently, requiring construction employers to take on this onerous task. Additionally, OSHA has included additional housekeeping provisions in this proposed rule, resulting in employers having to spend additional resources, which makes no sense given the lack of evidence indicating health risks for any of the construction operations.

III. Procedural Objections.

OSHA has never properly consulted with construction stakeholders regarding an appropriate approach to regulating beryllium in construction. Indeed, OSHA did not include any construction stakeholders in the SBREFA process during the formulation of the original proposed rule in 2015. Further, after the January 2017 final rule was issued, OSHA never engaged with construction stakeholders in the formulation of the June 2017 proposed rule. OSHA could have taken that time to work with construction stakeholders in various, if not all, areas of the construction industry to determine whether certain areas had higher potential risk of beryllium exposure whereas other industries had no such potential risk. However, OSHA never took the time to do so and instead excluded construction stakeholders from the process entirely.

OSHA also failed to meaningfully consult with the Advisory Committee on Construction Safety and Health (“ACCSH”) at any point during its rulemaking process. Consultation with the ACCSH is required under 29 C.F.R. § 1911.10(a), and OSHA’s meager attempt to consult in 2015 was a seven page powerpoint presentation where only two of the slides specifically concerned construction. In 2017, OSHA did not seek ACCSH feedback at all, depriving construction stakeholders the opportunity to provide feedback on how to regulate beryllium.

As for this proposed rule, OSHA once again failed to meaningfully consult with ACCSH – OSHA only gave background documentation to ACCSH members and the public, which did not include the actual proposed rule or any economic or risk analyses. Further, OSHA had already submitted the proposal to the Office of Management and Budget (“OMB”) prior to having the ACCSH meeting. The pre-ACCSH submission to OMB demonstrates how OSHA has ignored its own rulemaking requirements and had already made up its mind that this regulatory approach to regulating beryllium was appropriate.

Additionally, as the CISC stated at the beginning of the hearing, the CISC is disappointed that OSHA did not accept questions on the proposed rule. Tr., 12-13. The CISC “had questions for the agency” and it is the CISC’s belief that such questions would have been “helpful in trying to understand the proposed rule and therefore informing post-hearing comments and briefs.” *Id.* at 12:16-20.

IV. Post-Hearing Arguments.

As stated earlier, the CISC is not simply reiterating its pre-hearing comments in this submission. The CISC’s overall view of the rulemaking record is that the record supports the arguments made by the CISC in its pre-hearing comments. There were some statements and evidence introduced into the record during the hearing and in some post-hearing comments, however, that the CISC wishes to address in this submission.

A. Risk of Beryllium Exposure in Operations Other Than Abrasive Blasting.

First, representatives from numerous organizations testified at the hearing or submitted post-hearing comments regarding whether construction workers were at risk of beryllium exposure when performing operations other than abrasive blasting.¹

National Jewish Health (“NJH”) argued that “construction workers are exposed through work other than abrasive blasting, particularly in facilities that make and use beryllium-containing alloys.” Tr., 84. Yet, NJH has been unable to identify any cases where a construction worker has been treated and confirmed with BeS, CBD or other associated disease endpoints based on their work in the private construction trade. *Id.* at 60. To be clear, NJH, which “has a presence both as a diagnostic center and a research center” in the industrial medical surveillance area, has found *no evidence* to support OSHA’s position that workers across the construction industry are at risk of beryllium exposure at or above the PEL or STEL.² Moreover, NJH was also unable to identify

¹ The CISC disagrees with OSHA’s position, and the other organizations that hold a similar position, that beryllium exposure in abrasive blasting operations results in a health risk of BeS, CBD or other associated disease endpoints, as there has been no evidence supporting this conclusion.

² The CISC acknowledges NJH’s statement that it is unable to disclose information on construction trades workers seen for clinical evaluation at NJH due to HIPAA regulations. However, it is not a violation of HIPAA to indicate whether any clinical evaluations have been conducted and

any construction trades workers initially diagnosed with sarcoidosis who were subsequently diagnosed with chronic beryllium disease.” NJH Post-Hearing Comments, p. 1.

Public Citizen alleged that there were workers in the construction and shipyard industries that were exposed to greater than trace amounts of beryllium. Tr., at 132-33. However, when the OSHA panel asked Public Citizen to identify “what sort of operations or businesses, what kind of companies, or construction and shipyards” jobs came with that greater exposure risk, Public Citizen was unable to name any additional operations beyond abrasive blasting. *Id.* at 133.

Additionally, the United Steelworkers (“USW”) admitted that “there is some beryllium everywhere. But in most materials, not enough to be of concern.” *Id.* at 21-22. North America’s Building Trades Union (“NABTU”) also testified that “we’ve never seen elevated exposures to beryllium in earth-moving. And sawing and using construction products, sure there may be trace amounts in some construction products, and it is in nature, but as far as we know, we haven’t seen hazardous exposures in kind of the gamut of construction material use and manipulation. It’s just not there as far as we know.” Tr., 89. This is exactly the CISC’s point – trace beryllium as it naturally occurs does not present a beryllium health risk and therefore, this proposed rule should not be applied across the entire construction industry.

B. Beryllium Exposure through Inhalation and Dermal Routes.

NABTU purports that the record shows that other workers outside of the abrasive blasting or welding operations are potentially at risk of beryllium exposure and that “it is widely accepted that beryllium exposure and sensitization occurs through inhalation and dermal routes.” *Id.* at 114, 120. This is wholly untrue – only soluble compounds can cause beryllium sensitization through inhalation and dermal routes. And soluble compounds *do not exist* in any area of or operation in the construction industry. Additionally, the AFL-CIO also commented that there is “evidence of significant airborne exposures in construction and shipyards, even where there are only trace amounts of beryllium in the materials.” AFL-CIO Post-Hearing Comments, p. 1. Yet, all of the testifying organizations have admitted that they have no evidence that construction workers have actually been confirmed with BeS, CBD or other associated disease endpoints due to construction work, including any work where inhalation or dermal exposure may be a factor. Tr., at 68. The AFL-CIO also failed to present actual evidence supporting its position that trace amounts of beryllium can create potential risk of beryllium exposure at the PEL or STEL levels.

Materion, the primary producer of beryllium-containing products in the United States, refuted NABTU and AFL-CIO’s concerns regarding inhalation and dermal routes for beryllium

whether any such evaluations have resulted in confirmed beryllium sensitization and/or chronic beryllium disease. Such information does not expose the identity or specific medical health information of any individual construction trades workers. NJH’s inability to provide any data on construction trades workers with confirmed beryllium sensitization and/or chronic beryllium disease points to the lack of any evidence that beryllium exposure in the construction industry has resulted in BeS or CBD. NJH Post-Hearing Comments, p. 1.

exposure by indicating that any applications of copper beryllium components “would exist as articles which would only be repaired by exchanging or replacing a component on the worksite and *not require any airborne particle generating work activity.*” Materion Post-Hearing Comments, pp. 2-3. Moreover, OSHA itself, previously collected air sampling data from the OSHA Information System (OIS) Air Sampling database and concluded that the small amount of beryllium found in some rock, soils, and concrete will not create foreseeable exposures above the PEL or STEL that would trigger the requirements of the beryllium standard for construction. *See* Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile for Beryllium (Docket No. OSHA-H005C-2006-0870-1371). Simply put, skin and air exposure to beryllium in the construction industry do not present a health risk of developing BeS, CBD or other associated disease endpoints. Beryllium in soluble compounds is the only situation in which skin exposure and inhalation may result in a potential health risk of BeS, CBD or other associated disease endpoints, and as discussed above, soluble compounds are *not found* in the construction industry. Once again, neither OSHA nor any of the other organizations have been able to find or present any evidence or data that skin or air exposure to beryllium in the construction and shipyard sectors has resulted in BeS, CBD or other associated disease endpoints.

C. Non-Sparking Tools and Whether Such Tools Present Risk of Beryllium Exposure.

The CISC would also like to address hearing testimony alleging that construction workers are potentially exposed to beryllium when dressing and cleaning non-sparking tools. One of the USW representatives stated that “we do know that there is some beryllium exposure in the dressing of non-sparking tools, which are often made from beryllium-copper alloy. Those tools are common in construction, they’re common in a lot of manufacturing, I know that they’re in the shipyard. I’ve used those tools myself on the job, on a construction job.” Tr., 17-18. USW also testified that the only example of a potential exposure to beryllium that is not associated with abrasive blasting or welding “is using beryllium copper tools which are used in order to prevent sparks ... now, using the tools is usually not a problem, but dressing the tools when they have to be – when the edge has to be sharpened, is.” *Id.* at 32. Additionally, NJH also testified that “many construction industries use beryllium containing non-sparking tools ... grinding and cleaning these tools, which we were also just talking about, can lead to significant exposures.” *Id.* at 48.

However, Materion states in its post-hearing comments that while Materion does not serve the non-sparking tool market, “the other primary producer of copper beryllium does serve the non-sparking tool market and has a program where its customers can return non-sparking tools for sharpening at no cost.” Materion Post-Hearing Comments, p. 3. Further, the NABTU even testified that “in 2015, *we looked really hard* and where we saw the use of non-sparking tools was in petrochemical industries, where you know, you have explosive hazards... *we didn’t find examples of trades people doing the dressing and doing sharpening, even though we asked.*” Tr., 88; *see also* Tr., 98 (“[i]t’s the people who have to sharpen or dress or in other ways alter the non-sparking tools through a mechanical or heat process where there’s potential exposure. But again, I didn’t find construction trades members who told me they did that.”). Accordingly, despite the testimony from USW and NJH arguing that beryllium exposure is a concern with regards to the

dressing of non-sparking tools, there is utterly no evidence indicating that anyone in the construction industry is dressing, cleaning, or altering these tools with any frequency, and therefore any risk for beryllium exposure is virtually non-existent. Without any evidence supporting its belief that beryllium exposure in the construction industry results in a health risk, OSHA is improperly seeking to apply this proposed rule to every operation in the construction industry.

D. Personal Protective Equipment and Other Protective Measures.

During the hearing, the OSHA panel also explicitly asked NABTU, the AFL-CIO, and other commenters what their concern was regarding dermal exposure to trace beryllium and the need for personal protective clothing. None of the commenters were able to directly address the “trace beryllium” aspect of OSHA’s questions. Indeed, there is a noticeable and important absence of scientific evidence to support the notion that worker exposure to naturally occurring beryllium or in materials where beryllium was not intentionally added has resulted in beryllium-related health effects (including dermal effects). The AFL-CIO argued that there are “limitations to PPE” and that the respirators and PPE fail to fully protect such workers from beryllium exposure. AFL-CIO Post-Hearing Comments, p. 3. The USW testified that “even though the blasters, the people who were actually engaged in an operation may be well protected, there may be bystanders who may be exposed to things that escape from containment or that are left over after the containment’s removed.” Tr., 45.

However, if this is the case, OSHA could have explored other more cost-effective options or created a limited standard that revises how PPE and other protective measures can be implemented in abrasive blasting operations to protect the abrasive blasting operators as well as others around the immediate area. But instead of pursuing an appropriately scoped standard, this rule creates a blanket standard across all areas of the construction industry, even though there is no data demonstrating that any other workers have confirmed BeS, CBD and/or other associated disease endpoints.

E. Overbroad Nature of This Proposed Rule.

In its pre-hearing comments as well as in this post-hearing brief, the CISC has focused on the key point that there has been no testimony or written comments in the record that have identified any confirmed beryllium sensitization and/or chronic beryllium disease during construction work activities aside from abrasive blasting or construction workers at DOE sites where beryllium was being manufactured. Materion has also stated that “after consultation with knowledgeable and experienced Materion sales and marketing personnel, [Materion] could not identify any uses of copper beryllium in structural applications in the shipyard, construction or petrochemical industries.” Materion Post-Hearing Comments, p. 2. Materion also shared that the other primary producer of beryllium-containing products also could not identify any uses of copper beryllium in the construction or shipyard industries. *Id.* The CISC has urged OSHA to properly scope out this proposed rule to limit the regulation of beryllium exposure in construction.

However, the USW has argued that “OSHA cannot assume that beryllium will never be used in the future because this standard, once it is adopted, is going to be with us for 40, 50, 60

years...if somebody in shipyards or construction comes up with a new operation using beryllium, or exposing workers to beryllium, and that creates dermal exposure, it creates possible emergencies, it creates housekeeping issues, those will not be covered, and that's simply wrong." Tr., 18-19. The USW further testified that "the idea that OSHA would promptly act to correct those overexposures from future uses of beryllium is a little farfetched in our mind." *Id.* at 33.

The CISC disagrees with the USW's position. And the USW and OSHA needs to look no further than this rulemaking process. In less than four years, OSHA took steps to propose a rule in 2015, issued a final rule two years later in January 2017, reopened the rulemaking record and issued a new proposed rule in July 2017, issued a final rule in September 2019, and most recently, proposed a new rule a week later in October 2019. OSHA has been active during this rulemaking, and has the ability to, and, moreover, has demonstrated the willingness to reopen the rulemaking to issue new proposed rules in order to address additional issues or requirements. The CISC finds it both illogical and unnecessary for OSHA to broadly apply this proposed rule across all operations in the construction industry simply because *there is a chance* that beryllium will be used differently in the future. The primary purpose of this rule is to protect employees working in the industries where beryllium is present as an additive to an end product not regulate non-existent beryllium exposure in hypothetical situations that are not based on real world examples.

V. Conclusion.

OSHA's proposed rule, if finalized, will have a profound impact on construction operations and the construction industry as a whole. The CISC shares OSHA's desire to ensure that all employees are protected from beryllium and beryllium compound exposure that results in beryllium sensitization and/or chronic beryllium disease.

However, the CISC disagrees with OSHA's position that it must create a standard regulating beryllium and beryllium compound exposure across all areas of the construction and shipyard sectors. The CISC believes that OSHA needs to re-evaluate what it is relying on in forming the position that there is a risk of beryllium sensitization and/or chronic beryllium disease in all areas of the construction and shipyard sectors. Indeed, the record and the hearing testimony and post-hearing comments from various other members of the public has failed to present any scientific evidence identifying any beryllium sensitization or chronic beryllium disease from construction or maintenance work activities (aside from construction workers at DOE sites where beryllium was manufactured). Relying on generalizations of the possibility of beryllium exposure and a perceived risk of beryllium sensitization or chronic beryllium disease is improper.

While the CISC understands that OSHA has spent significant time and resources on this rulemaking, it also believes that the Agency has failed to meet its burden to show the proposal is scientifically needed across all areas of the construction and shipyard sectors. The CISC appreciates OSHA's consideration of its comments and testimony throughout the rulemaking process, and hopes that the Agency thoroughly reviews the entire rulemaking record before determining what is the appropriate approach to take with respect to beryllium and beryllium compounds in the construction and shipyard sectors.

American Road and Transportation Builders Association
American Society of Concrete Contractors
American Subcontractors Association
Associated Builders and Contractors
Associated General Contractors
Association of the Wall and Ceiling Industry
Concrete Sawing & Drilling Association
Construction & Demolition Recycling Association
Distribution Contractors Association
Interlocking Concrete Pavement Institute
International Council of Employers of Bricklayers and Allied Craftworkers
Leading Builders of America
Mason Contractors Association of America
Mechanical Contractors Association of America
National Association of Home Builders of the United States
National Association of the Remodeling Industry
National Demolition Association
National Electrical Contractors Association
National Roofing Contractors Association
National Utility Contractors Association
Natural Stone Council
The Association of Union Constructors
Tile Roofing Industry Alliance